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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/938,003 | 08/22/2001 | Jeffrey Herbert Woods | 064157.0105 | 1112 |

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Matthew B. Talpis, Esq.
Baker Botts L.L.P.
Suite 600
2001 Ross Avenue
Dallas, TX 75201-2980

| EXAMINER | |
|---|---|
| LAO, SUE X | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2126 | |

DATE MAILED: 12/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 09/938,003 | WOODS ET AL. | |
| | Examiner | Art Unit | |
| | Sue Lao | 2126 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *20 July 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-9 and 11-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9 and 11-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

## DETAILED ACTION

1. Claims 1-9, 11-23 are pending. This action is in response to the amendment filed 7/20/2004. Applicant has amended claims 1, 3, 5, 8, 11, 12, 17 and 22.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1-9, 11-23 are rejected under the judicially created doctrine of obviousness - type double patenting as being unpatentable over claims 1-2 of U.S. Patent No. 6,360,279 to Woods in view of U.S. Patent No. 5,761,507 to Govett. Although the conflicting claims are not identical, they are not patentably distinct from each other. For example, as to claim 5, U.S. Patent No. 6,360,279 teaches operating a parallel client server system comprising: creating a plurality of handler processes with a spawner process at a server (claim 1, lines 2-6, 32-40); initializing a well-known address at the server (claim 1, lines 2-6); storing at least one request received by the well-known address in a buffer associated with the well-known address at the server (claim 1, lines 7-10); notifying, in parallel, a plurality of the handler processes that at least one request has arrived; accepting each pending request from the buffer, in parallel, with the plurality of handler processes (claim 1, lines 11-13). U.S. Patent No. 6,360,279 does not teach when the number of handler processes exceeds the number of pending requests, nor accepting a number of pending requests substantially equal to the number of handler processes when the number of pending requests exceeds or equals the number of handler processes. Govett teaches operating a client server system, including accepting each pending request with the plurality of handler processes when the number of handler processes exceeds the number of pending requests (when 'server min' is configured as two or more and one request is received, col. 6, lines 53-59), and accepting a number of pending requests substantially equal to the number of handler processes when the number of pending requests exceeds or equals the number of handler processes (when 'server min' is configured as one and one request is arrived, col. 6, lines 16-18). Therefore, one of ordinary skill in the art would have been motivated

to use the teaching of Govett with U.S. Patent No. 6,360,279 so as to support concurrent servers for clients (Govett, col. 3, lines 18-32). As to claims 1, 11, 12, 17 and 22, note discussion of claim 5 above. As to claims 2, 6, a thread is a light weight process, and thus it would have been obvious to use threads to process requests. As to claims 3, 8, 14, 19, U.S. Patent No. 6,360,279 teaches the spawner process is operable to increase or decrease the number of handler processes currently in existence at any time (claim 1, lines 32-40). As to claims 4, 7, U.S. Patent No. 6,360,279 as modified teaches each processor operable to run one or more handler processes or the spawner process (Govett, servers 1, 2, 3, M). As to claims 9, U.S. Patent No. 6,360,279 as modified teaches the initialization of the well-known address is performed by cooperation between the operating system and the spawner process [binding inherent to a spawn/fork operation]. As to claim 13, 18, U.S. Patent No. 6,360,279 teaches processing error conditions with those available handler processes that did not successfully accept a pending request when the number of available handler processes is greater than the number of pending requests (claim 1, lines 11-22). As to claim 14, 19, U.S. Patent No. 6,360,279 teaches creating a plurality of the handler processes with a spawner process and wherein the available handler processes comprise a subset of the handler processes (claim 1, lines 32-40, 11-22). As to claims 15, 20, U.S. Patent No. 6,360,279 teaches notifying comprises updating a flag and wherein the flag is accessible by substantially all the handler processes at substantially any time (claim 1, lines 23-28). As to claims 16, 21, initialization is a typical part of the binding process for a well-known address / server port. As to claim 23, U.S. Patent No. 6,360,279 teaches servicing accepted requests with those handler processes that successfully accepted a pending request; and processing error conditions with those handler processes that did not successfully accept a pending request (claim 1, lines 11-22).

4. In the remarks filed 7/20/2004, applicant argued "that Govett is not a proper reference on which a double patenting rejection can be based because the present Application and Govett neither shares a common inventor nor has common ownership

which are both required for a reference to support a double patenting rejection.". (Remarks, page 8, 2nd paragraph).

The examiner's response is that Govett is the secondary reference relied on to modify the primary reference (U. S. Patent No. 6,360,279 to Woods, assigned to Bea Systems, Inc.) as applied to the obviousness - type double patenting rejection. A secondary reference relied on in the obviousness - type double patenting rejection is not required to have common inventive entity nor common ownership. See MPEP section 804. Therefore, applicant's argument is not persuasive.

5. Claims 1-9, 11-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Govett (U. S. Pat. 5,761,507) in view of Duault et al (U S Pat. 5,428,781).

As to claim 5, Govett teaches a method of operating a parallel client server system comprising:

creating a plurality of handler processes (servers / identical applications providing a particular service, col. 11, lines 42-43) with a spawner process (start another server for this service, col. 9, lines 9-13) at a server (RPC server 14);

initializing a well-known address at the server (register with portmapper the server address / port number of transaction manager XMAN 110, col. 5, lines 46-53);

storing at least one request (client request) received by the well-known address in a buffer (request queue 310) associated with the well-known address at the server (col. 6, lines 53-56);

accepting each pending request from the buffer with the plurality of handler processes (direct the request to server, col. 6, lines 53-59) when the number of handler processes exceeds the number of pending requests (one request received and 'server min' or 'server start' set to two or more) (col. 7, lines 61-67; col. 11, lines 35-54; col. 12, lines 32-50).

Govett does not teach (1) notifying, in parallel, a plurality of the handler processes that at least one request has arrived, and (2) that the accepting each pending request from the buffer is performed in parallel.

As to (1) and (2), Duault teaches a method of operating a parallel client server system, including notifying, in parallel, a plurality of the handler processes that at least one request has arrived (transmit E-NE signal to all processors/processes on the signaling processor list SPL, col. 3, lines 20-22; col. 6, lines 23-39 ), and performing accepting each pending request from the buffer in parallel (server processes perform dequeue operations at approximately the same time, col. 4, lines 42-49). Therefore, it would have been obvious to notify in parallel, a plurality of the handler processes that at least one request has arrived in Govett, and to perform accepting each pending request from the buffer in parallel in Govett. One of ordinary skill in the art would have been motivated to do so because this would have rendered the scheduling and execution fault tolerant (Duault, col. 2, lines 38-40).

As to claim 6, a thread is a light weight process, and thus it would have been obvious to use threads to accept and process pending requests.

As to claim 7, Govett as modified by Duault teaches the plurality of processes running on a plurality of physical processors (server processes 1, 2 running on server processors 1, 2, respectively, Duault, fig. 2). Note discussion of claim 5 for a motivation to combine.

As to claim 8, Govett teaches increasing or decreasing the number of handler processes (start or stop a server) currently in existence with the spawner process (col. 12, lines 22-64).

As to claim 9, Govett teaches initializing the well-known address performed by cooperation between the operating system and the spawner process (initialization, including registering the XMAN, col. 11, lines 55-67).

As to claim 1, note the discussion of claim 5. Further, Govett's interprocess communication (communication manager) and transaction manager/XMAN form integral parts of the operating system that operates server 12' (col. 5, lines 13-25). Govett as modified by Duault further teaches (Duault) the operating system includes a notification system [It is noted that communication management and memory management are typical parts of an operating system], the notification system operable to be accessed by the handler processes (scheduler state table 11 related to the queue), the notification

system further operable to reflect the existence of data in the buffer when data exists in the buffer (E-NE signal) and to reflect the non-existence of data in the buffer when the buffer is free of-data (EN-E signal) (Duault, col. 8, lines 16-38). Note discussion of claim 5 for a motivation to combine.

As to claims 2-4, note claims 6, 8 and 7, respectively, for discussions.

As to claim 11, note claims 5 and 1 for discussion.

As to claim 12, note claims 5 and 1 for discussion. Govett further teaches available handler process (available servers, col. 11, line 55 – col. 12, line 18), and servicing accepted pending requests (process client requests, col. 8, lines 65-66).

As to claim 13, Govett as modified by Duault teaches processing error conditions with those available handler processes that did not successfully accept a pending request (perform dequeue on the empty queue, Duault, col. 4, lines 51-52), and note discussion of claim 5 for when the number of available handler processes is greater than the number of pending requests.

As to claim 14, Govett teaches creating a plurality of the handler processes with a spawner process (start another server for this service, col. 9, lines 9-13). In Govett, the available handler processes comprise a subset of the handler processes because the handler processes include available/activated as well as idle handler processes.

As to claim 15, Govett as modified by Duault teaches (Duault) updating a flag (scheduler state table 11, fig. 7) and wherein the flag is accessible by substantially all the handler processes at substantially any time (col. 5, lines 4-6; col. 8, lines 16-38). Note claim 5 for a motivation to combine.

As to claim 16, initialization (binding) is a typical part of providing a well-known address [such as the fork-exec operation]. Govett also teaches initializing the well-known address (XMAN address) (registering the XMAN address, col. 11, lines 55-67).

As to claim 17, it is a program product claim of claim 12, thus note claim 12 for discussion.

As to claims 18-21, note claims 13-16, respectively, for discussions.

As to claim 22, note claim 12 for discussion.

As to claim 23, Govett as modified teaches servicing accepted requests with those handler processes that successfully accepted a pending request (Govett, process client requests, col. 8, lines 65-66); and processing error conditions with those handler processes that did not successfully accept a pending request (Duault, perform dequeue on the empty queue, col. 4, lines 51-52).

6. Applicant's arguments filed 7/20/2004 have been fully considered but they are not persuasive.

As to applicant's remarks (page 8) regarding the validity of the Govett reference relied on in the obviousness - type double patenting rejection, note section 4 of this office action.

Regarding claim 5, applicant argued that a server in Govett is not a handler process because applicant describes a process as an executing or executable program. (remarks, page 10, 3rd paragraph).

The examiner's response is as follows. One of ordinary skill in the art would recognize that a process is a program in execution. The server of Govett, like any other servers, is a software program developed and running to service/handle clients' requests (receive and process client's request(s)). Such execution and service/handling is disclosed in Govett, for example, as "server providing a service", "request for a task included within the service" (col. 3, lines 33-41), "service application is resident and running" (col. 4, lines 25-35) and "server providing service" and "RPC server" (col. 4, lines 53-62). Therefore, a server process in Govett is a handler process, as recognized by one of ordinary skill in the art, and meets the handler process as claimed (see, for example, claim 5, line 2).

Applicant further argued that Govett does not teach accepting each pending request with a plurality of handler processes when the number of handler processes exceeds the number of pending requests (remarks, paragraph bridging pages 10 and 11).

The examiner respectfully disagrees. First, as claimed, the number of request / each pending request include one request ("at least one request", claim 5, line 5), and

the number of handler processes exceeding the number of pending requests includes two or more handler processes (claim 5, lines 10-11). Second, in Govett, accepting one pending request with a handler process is met by receiving and directing the request to a server for processing. Col. 6, lines 3-59. Govett further teaches the number of servers / handler processes to service client's request(s) is configured with the parameters 'server start' and 'server min', ie, the number of server processes started, which is set to 1 or 2 or more servers (col. 7, lines 61-67; col. 11, lines 35-54; col. 12, lines 32-50). Clearly, Govett teaches receiving and processing a client request when there is one request received and two or more servers started, therefore, meeting "accepting each pending request with a plurality of handler processes when the number of handler processes exceeds the number of pending requests" as claimed.

Therefore, applicant's arguments are not persuasive.

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for response to this final action is set to expire THREE MONTHS from the date of this action. In the event a first response is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event will the statutory period for response expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sue Lao whose telephone number is (571) 272-3764. A voice mail service is also available at this number. The examiner's supervisor, SPE Meng-Ai An, can be reached on (571) 272 3756. The examiner can normally be reached on Monday - Friday, from 9AM to 5PM. The fax phone number for the organization where this application or proceeding is assigned is (703) 872 9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

December 7, 2004

SUE LAO
PRIMARY EXAMINER